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Earthquake Shaking    Green Alert

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**PAGER**
**Version 5**

# M 4.9, 114 km E of Tairua, New Zealand

Origin Time: 2020-08-29 12:45:19 UTC (Sun 00:45:19 local)
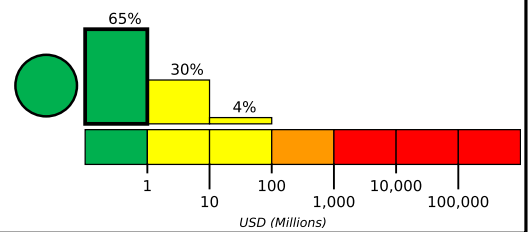Location: 36.8598° S 177.1260° E Depth: 10.0 km

Created: 3 weeks, 6 days after earthquake

## Estimated Fatalities

69%
29%

1    10    100    1,000    10,000    100,000
*Fatalities*

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.
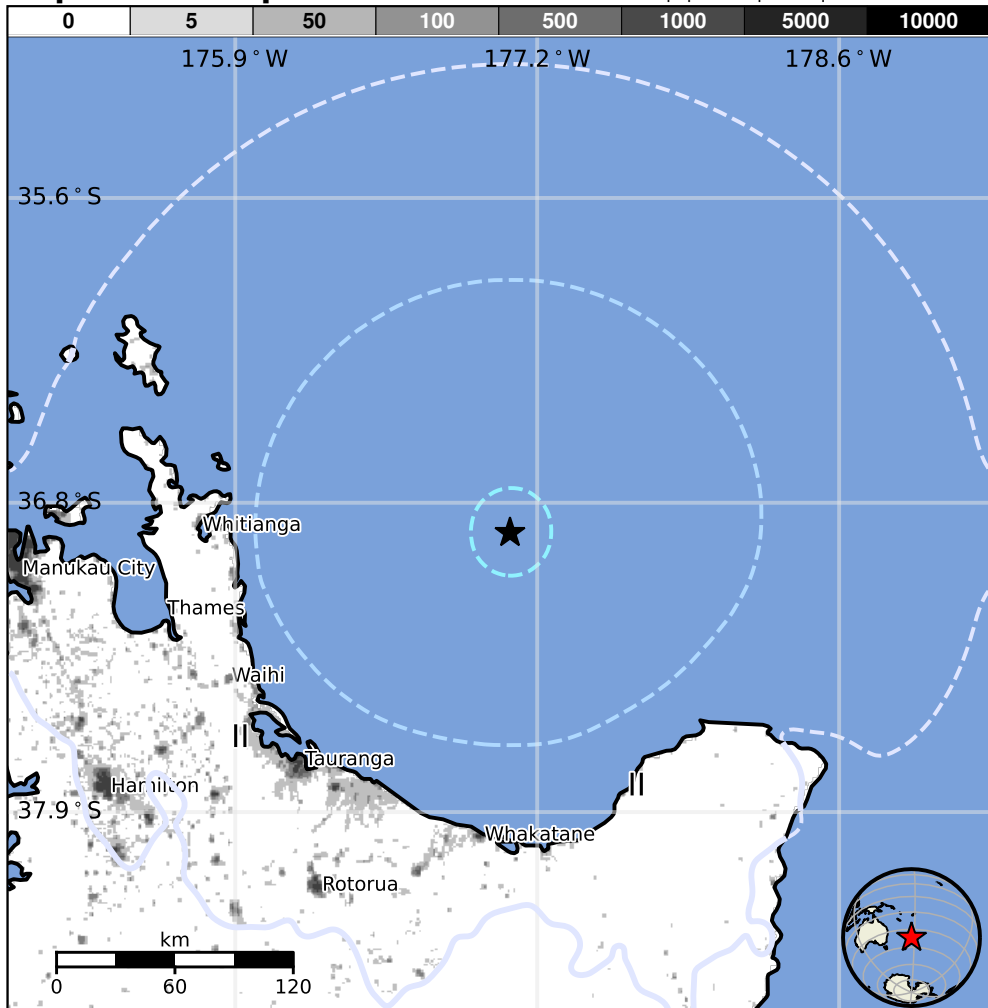
## Estimated Economic Losses

65%
30%
4%

1    10    100    1,000    10,000    100,000
*USD (Millions)*

## Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k=x1000) | | 82k* | 1,088k | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure

population per 1 sq. km from Landscan

| 0 | 5 | 50 | 100 | 500 | 1000 | 5000 | 10000 |
|---|---|---|---|---|---|---|---|



### Structures

Overall, the population in this region resides in structures that are highly resistant to earthquake shaking, though some vulnerable structures exist. The predominant vulnerable building types are reinforced masonry and unreinforced brick with timber floor construction.

### Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 2007-12-20 | 260 | 6.6 | VI(12k) | 0 |
| 1987-03-02 | 134 | 6.5 | VIII(16k) | 0 |
| 2004-07-18 | 142 | 5.4 | V(1k) | 1 |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

### Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| III | Tairua | 2k |
| II | Whangamata | 4k |
| **II** | **Whitianga** | **3k** |
| II | Ngatea | 1k |
| II | Katikati | 3k |
| II | Paeroa | 4k |
| **II** | **Tauranga** | **110k** |
| **II** | **Manukau City** | **362k** |
| **II** | **Rotorua** | **66k** |
| **II** | **Whakatane** | **19k** |
| **I** | **Hamilton** | **153k** |

bold cities appear on map.    (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us7000besr#pager

Event ID: us7000besr